

CRF Errors Corrected by the STIC Systems Branch

PC709

Serial Number: 09/936,845A

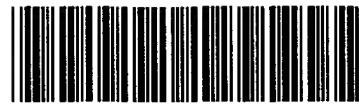
CRF Processing Date: 4/2/02
Edited by: DC
Verified by: DC (STIC staff) Changed a file from non-ASCII to ASCII Changed the margins in cases where the sequence text was "wrapped" down to the next line. Edited a format error in the Current Application Data section, specifically:

ENTERED

 Edited the Current Application Data section with the actual current number. The number inputted by the applicant was the prior application data; or other _____ Added the mandatory heading and subheadings for "Current Application Data". Edited the "Number of Sequences" field. The applicant spelled out a number instead of using an integer. Changed the spelling of a mandatory field (the headings or subheadings), specifically: Corrected the SEQ ID NO when obviously incorrect. The sequence numbers that were edited were: Inserted or corrected a nucleic number at the end of a nucleic line. SEQ ID NO's edited: Corrected subheading placement. All responses must be on the same line as each subheading. If the applicant placed a response below the subheading, this was moved to its appropriate place. Inserted colons after headings/subheadings. Headings edited included: Deleted extra, invalid, headings used by an applicant, specifically: Deleted: non-ASCII "garbage" at the beginning/end of files; secretary initials/filename at end of file; page numbers throughout text; other invalid text, such as _____ Inserted mandatory headings, specifically: Corrected an obvious error in the response, specifically: Edited identifiers where upper case is used but lower case is required, or vice versa. Corrected an error in the Number of Sequences field, specifically: A "Hard Page Break" code was inserted by the applicant. All occurrences had to be deleted. Deleted *ending* stop codon in amino acid sequences and adjusted the "(A)Length:" field accordingly (error due to a PatentIn bug). Sequences corrected: Other:

*Examiner: The above corrections must be communicated to the applicant in the first Office Action. DO NOT send a copy of this form.

3/1/95



PCT09

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/936,845A

DATE: 04/02/2002 P.5
TIME: 13:01:25

Input Set : A:\PTO.DC.txt
Output Set: N:\CRF3\04022002\I936845A.raw

3 <110> APPLICANT: Napier, Johnathan A.
5 <120> TITLE OF INVENTION: Polyunsaturated Fatty Acid (PUFA) Elongase from
Caenorhabditis elegans
7 <130> FILE REFERENCE: 76/7
C--> 9 <140> CURRENT APPLICATION NUMBER: US/09/936,845A
C--> 10 <141> CURRENT FILING DATE: 2002-03-06
12 <160> NUMBER OF SEQ ID NOS: 22
14 <170> SOFTWARE: PatentIn Ver. 2.1
16 <210> SEQ ID NO: 1
17 <211> LENGTH: 27
18 <212> TYPE: DNA
19 <213> ORGANISM: C. elegans
21 <400> SEQUENCE: 1
22 gcggttacca tggctcagca tccgctc 27
25 <210> SEQ ID NO: 2
26 <211> LENGTH: 27
27 <212> TYPE: DNA
28 <213> ORGANISM: C. elegans
30 <400> SEQUENCE: 2
31 gcggtatcct tagttttct tcttctt 27
34 <210> SEQ ID NO: 3
35 <211> LENGTH: 27
36 <212> TYPE: DNA
37 <213> ORGANISM: C. elegans
39 <400> SEQUENCE: 3
40 gcggttacca tgccacaggg agaagtc 27
43 <210> SEQ ID NO: 4
44 <211> LENGTH: 27
45 <212> TYPE: DNA
46 <213> ORGANISM: C. elegans
48 <400> SEQUENCE: 4
49 gcggtatcct tattcaattt ttctttt 27
52 <210> SEQ ID NO: 5
53 <211> LENGTH: 29
54 <212> TYPE: DNA
55 <213> ORGANISM: C. elegans
57 <400> SEQUENCE: 5
58 gcaattcac catgggtacg gaccaagga 29
61 <210> SEQ ID NO: 6
62 <211> LENGTH: 27
63 <212> TYPE: DNA
64 <213> ORGANISM: C. elegans
66 <400> SEQUENCE: 6
67 gcgagctcc tactttcct tgggacg 27

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/936,845A

DATE: 04/02/2002
TIME: 13:01:25

Input Set : A:\PTO.DC.txt
Output Set: N:\CRF3\04022002\I936845A.raw

70 <210> SEQ ID NO: 7
71 <211> LENGTH: 876
72 <212> TYPE: DNA
73 <213> ORGANISM: C. elegans
75 <400> SEQUENCE: 7
76 atggagctt ccgagttctg gaatgatctc aacacccatca ccatctacgg accgaatcac 60
77 acagatatga ccacaaaata caaatattca tattcattcc caggtgaaca ggtggcggat 120
78 ccgcgttattt ggacgatattt attccagaaa tattggatcc attcgatcac aatatcagtt 180
79 cttttatttca ttttaattaa ggtgattcaa aagtttatgg agaatcgaaa accattcact 240
80 ttgaaatacc cattgattct ttgaaatgg a gctctgcag cattcagtat aattgccaca 300
81 ttgcggttctt ctattgatcc totacgatca ctatatgctg aaggattcta caaaactctg 360
82 tgcttattcgt gtaatccaac t gatgtggcgt gcattttgga gctttgcatt cgctttcc 420
83 aagattgtt aacttggaga cactatgtt attattttga gaaaacggcc attgatctt 480
84 ttacactact atcatcatgc agcagtgtt atctacactg tccattctgg tgccgagcat 540
85 actgcagctg gtcgttcta catcctaatg aactacttcg cacattctct catgtatact 600
86 tactacacag tttctgccat gggatacaga ttaccgaaat ggttatcaat gactgtcaca 660
87 actgttcaaa caactcaaat gtagctgga gtcggaaataa cttggatggt gtacaaagt 720
88 aaaactgaat acaagcttcc ttgtcaacaa tccgtagcca atttgcattt cgcattcgtc 780
89 atctatgtca catttgcatt tctttcatt caattttcg tcaaggcata cattatcaag 840
90 tcgtcgaaga agtcgaaatc ggtgaagaac gaataa 876
93 <210> SEQ ID NO: 8
94 <211> LENGTH: 1308
95 <212> TYPE: DNA
96 <213> ORGANISM: C. elegans
98 <400> SEQUENCE: 8
99 atggcaaaat acgactacaa tccgaagtat gggtagaaa attacagcat attccttccc 60
100 tttagagacat cttttgatgc atttcgatcg acaacatgg a tgcaaaatca ctggtatcaa 120
101 tcaattacag catctgtcgt gtagtgcgtcc gtcattttt caggaaagaa ggtggttctc 180
102 atctacaaaaa aatcacgagt tattacttt gtagtgcgtcc ttcaatgc aattaagaat 240
103 cggaaaccgaa aatcaactaa tagttctcaa atgttcaga ttatggaaaa gtacaagccc 300
104 ttccaactgg acacaccact cttcgctgg aattcatttt tagccatttt ctcaattctc 360
105 gggttcctcc gaatgacacc tgaattttga tggagttgg cagcagaagg aaactcattc 420
106 aaatattcaa ttgtcattt acattatgtt caaggagtca ctggttctg gactgaacaa 480
107 ttgcataatg gcaaaactttt cgagctcatc gacacaatct tcattcgatc tcgtaaacgt 540
108 ccactcatct tccttcaactg gtagtgcgtcc gtaactgtt tgatctacac atggcacgcg 600
109 tacaaggatc acactgcattc aggacgggtt ttcatttgc tgaattatgg agttcatgct 660
110 cttatgtatt cttactatgc ttttcgttcc ctggaaattcc gtcttccaaa acaaattggca 720
111 atgggttta ctactctccaa acttgcgtccaa atggttatgg gtagtgcgtcc gggacttgc 780
112 gtctaccgtt tcaagtgcattc gggtaatac tgccaaacaga catggacaa tttgggatta 840
113 tgctttggag ttatttcac atatttcctt ctttcgccca acttcttcta ccatgcataat 900
114 gttaaagaaaa acaaccgtac agttaattt gaaaataattt caaaaaaaaatcccccgcattc 960
115 gtttaattt acctgagaaaa aaaggttca agaaaatcgaa aaaaatccgcatttccgcattc 1020
116 aataattata aaattcaatt ttcattcaat ttgttaatg ttgtggaaa aaaacataaag 1080
117 aaaacatatg aacttatttct tccaaagaaga aaaatcgatca caattttac ttgttctattt 1140
118 gaaaaaaatc gaatttttc gaaatatcg aaaaatcgaa aaaacatttc gatccgtt 1200
119 gatttcgaaa ttctggagcc aaaagaagat atcaatgcata acatcgctga gccatccatc 1260
120 acaacgagggt ccgcgcgcgc acgaagaaaa gttcaaaaaag ctgattag 1308
123 <210> SEQ ID NO: 9
124 <211> LENGTH: 825

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/936,845A

DATE: 04/02/2002
TIME: 13:01:25

Input Set : A:\PTO.DC.txt
Output Set: N:\CRF3\04022002\I936845A.raw

125 <212> TYPE: DNA
126 <213> ORGANISM: C. elegans
128 <400> SEQUENCE: 9
129 atggcagcag cacaacaag tccagcagcc acgctcgatc atgtttgac aaaaccatgg 60
130 agtctggatc agactgatc ttacatgtct acatttgc cattatcata taaaatcatg 120
131 attgggttac tcgtcaccat ctacttcggg caaaaattaa tggctcacag aaaaccatc 180
132 gatctccaaa atacacttgc tctctggaa ttcgggttt cactgttctc gggaaatcgcc 240
133 gcctataagc ttattccaga actattcggg gtttcatga aggacgggtt tgctcgatcc 300
134 tactgtcaaa acgagaacta ctacaccat gcatcaactg gattctgggg ctgggcctt 360
135 gtgatgtcga aagctccaga actaggggat actatgttct tggtccttcg taaaaaacca 420
136 gttatcttca tgcactggta tcatacatgcc ctcacatttgc tctacgcagt agtcacatac 480
137 tctgagcatc aggcattggc tctgtggatc ttggctctca accttgcgtt ccacactgtt 540
138 atgtatttct acttcgcgt tcgcgcctt aacatccaaa ctccacgccc agtggcaaag 600
139 ttcatcaacta ctattcaaat tgtccaattt gtcatctcat gtcacatttt tggcattt 660
140 gtattcatta agtctgtcga ttctgttctt ggttgcgtt ttagctggaa tggctatcg 720
141 atcggaggac tcatgtacat cagttatttgc ttcccttttgc ccaagttctt ctacaaggcc 780
142 tacattcaaa aacgctcacc aaccaaaaacc agcaagcagg agtag 825
145 <210> SEQ ID NO: 10
146 <211> LENGTH: 861
147 <212> TYPE: DNA
148 <213> ORGANISM: C. elegans
150 <400> SEQUENCE: 10
151 atgtcatcggtc acgatcggtt cactagaacc ttcaagatga tggatcaaat tcttggaaaca 60
152 aacttcactt atgaagggtc caaagaagtt gctcgaggcc ttgaagggtt ctcagcaaag 120
153 cttggcgatc gatatttttc cactattttt ggactgaaat attatatgaa agaccgaaaa 180
154 gccttcgatc tcagttactcc attaaacattt tggatggta ttcttcgac attcagctt 240
155 ttgggattttt tatttactttt tcctactttt ttatcagttt tcagaaagga tggatttagt 300
156 cacacctattt cccatgtctc tgagtttac actgacagta cctctggata ttggatctt 360
157 ctttgggtt tctcaaaat tccggaaactt ttggatacag tatttattttt tcttcgcaag 420
158 agaccacttta ttttcatgca ctgggttccat cacgcatttga ccgggttacta tgctcttgc 480
159 tgcttccatg aggtatgtt ccataatgggtt tgggttgtat ggatgaatta tatttattcat 540
160 gcattcatgt atggataacta tcttctgaaa tctctgaaag ttccaattcc accatcagg 600
161 gctcaagcaa tcaccacatc tcaaattgggtt caatttcgcgat ttggccattttt cgccacaagtt 660
162 catgtttctt ataaacacta tggatggggat gttgaaggat tagcctactc gttcagagga 720
163 acagctatcg gattttcat gcttactacc tacttctatc tatggatcattca atttacaaa 780
164 gagcaactatc ttaagaatgg aggcaaaaaag tacaatttgg caaaggatca ggcaaaaaact 840
165 caaacaagaaggtaacta a 861
168 <210> SEQ ID NO: 11
169 <211> LENGTH: 825
170 <212> TYPE: DNA
171 <213> ORGANISM: C. elegans
173 <400> SEQUENCE: 11
174 atgccacagg gagaagtctc attcttgcgtt gtcgtacaa ctgctccattt cagtcatttcg 60
175 ctctcaaaaaa agcatatttc acagactcgtt tatgtctgtt tctggatctc aatggcatat 120
176 gttgtcgatc tttttgggtt caaggctgtt atgacaaacc gaaaaccattt tgatctcag 180
177 ggaccacttgc atctctggaa tgcgggtttt gcttatttttcaactctcgatc atcacttgc 240
178 actacatttgc gacttctcca cggatcttc acggctggat ttttgcatttcc ttacatttgc 300
179 atcggagact tttataatggt actttctggat atgttgcattt ggttttcgt tctctcaaaa 360
180 gttgtcgatc tcggagatac actttttattt attcttcgtt aaaaaggccattt gatgttcctt 420

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/936,845A

DATE: 04/02/2002

TIME: 13:01:25

Input Set : A:\PTO.DC.txt

Output Set: N:\CRF3\04022002\I936845A.raw

181 cattggatc atcatgtgct tacaatgaat tatgcttta tgtcatttga agctaattt 480
 182 ggatttaata ctggattac atggatgaat ttctcagttc actcaattat gtatggat 540
 183 tataatgtttc gttctttgg tgtcaagggtt ccagcatgga ttgccaagaa tattacaaca 600
 184 atgcaaaattc ttcaattcg tattactcat ttcatctt tccacgttg atatggca 660
 185 gttactggac aatctgttga ctcaactcca ggttattt ggttctgcct tctcatggaa 720
 186 atctctttag tcgttctgtt cgaaaaacttc tactatcaat catacatcaa gggaggtggc 780
 187 aagaagttta atgcagagaa gaagactgaa aagaaaattt aataa 825
 190 <210> SEQ ID NO: 12
 191 <211> LENGTH: 846
 192 <212> TYPE: DNA
 193 <213> ORGANISM: C. elegans
 195 <400> SEQUENCE: 12
 196 atgtatttga attatttcgc gacggaaatc ttccatcgta gtgcggttt 60
 197 gcttgcgtc cgtcaaaaat aatgattgtt gacgtgttca aatggaaatt cgatgcaac 120
 198 gaatttgttga gtcttttaac gaatcaggat gaagtttcc cgcattttt 180
 199 ttcatcaag aacatgggg tctatttcgc cagatggca ttgcataatgtt catgggtt 240
 200 ttctcaatca aaagggttcat gagggttgc gttttttttt aactcaccac agctttcg 300
 201 ctctggaaact tcttccttc cgtttctca attttatggtt cttttttttt gttccattt 360
 202 atgggttcaac aaataagact ttatgggtt tacggatgtt gatgcgaagc acttcaac 420
 203 cttccgagtc aagcagaata ttggcttttctt ctgcgttcat tttttttttt tttttttttt 480
 204 gttgatacat ttttcttgggt tctccggaaa aaaccactca ttttccatca ctgttatcat 540
 205 catatggcaa catttgcattt cttctgcgtt aattttttttt cttccatcgca acaatcacgc 600
 206 gtcggagttt tcgttcaaccc ttggctgttcat gccttcatgtt accccatataa ttttccatcc 660
 207 tcaatggatca tcaaaatgttcc tggcaaaattt tcaatggctt ttacagttt tcaatttgc 720
 208 caatttcatgtt gctttatctt tggatgttact ctcatgttact actcggttgc cactaatc 780
 209 gcacgataacc cttcaaaatcc accttgcgatca ctccatgtt tttttttttt ttttccatcc 840
 210 ctttggaa 846
 213 <210> SEQ ID NO: 13
 214 <211> LENGTH: 866
 215 <212> TYPE: DNA
 216 <213> ORGANISM: C. elegans
 218 <400> SEQUENCE: 13
 219 atggctcagc atccgctcgat tcaacgggtt ctcgtatgtca aatttcgacac gaaacgattt 60
 220 gtggcttattt ctactcatgg gccaagaat ttccctgtacg cagaagggtcg caagttttttt 120
 221 gctgatcaactt ttgatgttac tatttcaggat tcaatccgtt acatgggtcg tttttttttt 180
 222 acaaaaatggt tcatgcgttca tggcaacca ttccatgttca ctattccactt caacatctgg 240
 223 aatttcatcc tggccgcattt ttccatcgca ggaggtgtca aatggatccca agatgtttttt 300
 224 ggaaccattt ccaacaaagg aatttgcgtt cctactgca agtgtttgtt tttttttttt tttttttttt 360
 225 gagagaatgg atactgggtt tggcttttca tggctttccaa acttttgcgg tttttttttt 420
 226 ccatcttctt gtttccatcc tttttttttt aatggatccca tttttttttt tttttttttt 480
 227 tcaccatgtt ctacgcctgg tactctcatc cattttttttt aatggatccca agatgtttttt 540
 228 tttatctttaa ctttgcgttca ctttgcgttca tttttttttt tttttttttt 600
 229 agatttgcgtt gccaaggatcc atccggccaaatcc tttttttttt tttttttttt 660
 230 tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt 720
 231 gtttgcgttca tttttttttt tttttttttt tttttttttt tttttttttt 780
 232 tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt 840
 233 ctttgcgttca tttttttttt tttttttttt tttttttttt tttttttttt 866
 236 <210> SEQ ID NO: 14
 237 <211> LENGTH: 801

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/936,845A

DATE: 04/02/2002

TIME: 13:01:25

Input Set : A:\PTO.DC.txt

Output Set: N:\CRF3\04022002\I936845A.raw

238 <212> TYPE: DNA
 239 <213> ORGANISM: C. elegans
 241 <400> SEQUENCE: 14
 242 atgtcggccg aagtgtccga acgattcaaa gtttggacag gaaacaatga gaccatcatc 60
 243 tattccccat tcgagttacga ttccacgttg ctcatcgagt catgtcggtg tacttatcag 120
 244 ctgttttatat tattgcgaca aatttattac agagatataat ggagtacacgg aaacctaaaa 180
 245 cttttactag catggaacgg ttttttggca gtgttcagta ttatgggtac atggagattt 240
 246 ggaatcgaat tctacgtatgc tggtttcaga agaggctca tcgattcgat ctgcctggct 300
 247 gtaaatccac gttcaccgtc cgcatctgg gcatgcatt tcgctctatc gaaaatcgcc 360
 248 gagtttgggg acacgatgtt ttgggtctgg aggaaaacggc cggttatatt ccttcactgg 420
 249 tatcatcactg ctgttggttct gatcctttct tggcatgctg caatcgaact cacagctcca 480
 250 ggacgctgggt ttatttttat gaactatttgc gtgcattcaa taatgtatac atactacgca 540
 251 ataacatcaa tcggctatcg tcttcccaaa atcgtttcaa tgactgttac attccttcaa 600
 252 actcttcaaa tgctcatttgg tgcagcatt tcttgcatt tgctttatggtaat 660
 253 ggagagatgt gccaacaatc ctacgacaat ctggcgttga gcttcgaat ctacgcctca 720
 254 ttccctggtgc tatttccttcaac aatgcattt tggtaaaaaa ggacaagaaaa 780
 255 cccgatgtga agaaggatta a 801
 258 <210> SEQ ID NO: 15
 259 <211> LENGTH: 291
 260 <212> TYPE: PRT
 261 <213> ORGANISM: C. elegans
 263 <400> SEQUENCE: 15
 264 Met Glu Leu Ala Glu Phe Trp Asn Asp Leu Asn Thr Phe Thr Ile Tyr
 265 1 5 10 15
 267 Gly Pro Asn His Thr Asp Met Thr Thr Lys Tyr Lys Tyr Ser Tyr His
 268 20 25 30
 270 Phe Pro Gly Glu Gln Val Ala Asp Pro Gln Tyr Trp Thr Ile Leu Phe
 271 35 40 45
 273 Gln Lys Tyr Trp Tyr His Ser Ile Thr Ile Ser Val Leu Tyr Phe Ile
 274 50 55 60
 276 Leu Ile Lys Val Ile Gln Lys Phe Met Glu Asn Arg Lys Pro Phe Thr
 277 65 70 75 80
 279 Leu Lys Tyr Pro Leu Ile Leu Trp Asn Gly Ala Leu Ala Ala Phe Ser
 280 85 90 95
 282 Ile Ile Ala Thr Leu Arg Phe Ser Ile Asp Pro Leu Arg Ser Leu Tyr
 283 100 105 110
 285 Ala Glu Gly Phe Tyr Lys Thr Leu Cys Tyr Ser Cys Asn Pro Thr Asp
 286 115 120 125
 288 Val Ala Ala Phe Trp Ser Phe Ala Phe Ala Leu Ser Lys Ile Val Glu
 289 130 135 140
 291 Leu Gly Asp Thr Met Phe Ile Ile Leu Arg Lys Arg Pro Leu Ile Phe
 292 145 150 155 160
 294 Leu His Tyr Tyr His His Ala Ala Val Leu Ile Tyr Thr Val His Ser
 295 165 170 175
 297 Gly Ala Glu His Thr Ala Ala Gly Arg Phe Tyr Ile Leu Met Asn Tyr
 298 180 185 190
 300 Phe Ala His Ser Leu Met Tyr Thr Tyr Tyr Thr Val Ser Ala Met Gly
 301 195 200 205
 303 Tyr Arg Leu Pro Lys Trp Val Ser Met Thr Val Thr Val Gln Thr

Use of n and / or Xaa has been detected in the
 Sequence Listing. Review the Sequence Listing
 to ensure a corresponding explanation is present
 in the <220> to <223> fields of each sequence
 using n or Xaa.

VERIFICATION SUMMARY

PATENT APPLICATION: US/09/936,845A

DATE: 04/02/2002

TIME: 13:01:26

Input Set : A:\PTO.DC.txt

Output Set: N:\CRF3\04022002\I936845A.raw

L:9 M:270 C: Current Application Number differs, Replaced Current Application Number
L:10 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:748 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:22
L:754 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:22
L:757 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:22
L:772 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:22